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	FILING DATE	FIRST NAMED INVENTOR			ATTORNEY DOCKET NO.	
APPLICATION NO.				Ï	3401.P1D1C1	
09/245.499	02/05/9	A bit manager conso			EXAMINER	
JAMES C SCHELLER JR BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD SEVENTH FLOOR				EXAMINER		
				CUNEO.K		
				ART UNIT	PAPER NUMBER	
				2841		
LOS ANGELE	S CA 90025	-1026		DATE MAILED:	10/06/00	

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks** 



#### UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 ATTORNEY DOC: ET NO FIRST NAMED INVENTOR FILING DATE EXAMINER PAPER NUMBER ART UNIT DATE MAILED: This is a communication from the examiner in charge of your application. COMMISSIONER OF PATENTS AND TRADEMARKS This action is made final. Responsive to communication filed on\_ This application has been examined days from the date of this letter. \_ month(s), \_ Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133 Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION: 2. Notice of Draftsman's Patent Drawing Review, PTO-948. 1. Notice of References Cited by Examiner, PTO-892. 4. Notice of informal Patent Application, PTO-152. Notice of Art Cited by Applicant, PTO-1449. 5. Information on How to Effect Drawing Changes, PTO-1474. Part II SUMMARY OF ACTION \_\_\_\_ are pending in the application. are withdrawn from consideration. Of the above, claims \_ have been cancelled. 2. Cialms\_\_\_\_ 3. Claims \_ are subject to restriction or election requirement. 7. This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes. Formal drawings are required in response to this Office action. . Under 37 C.F.R. 1.84 these drawings 9. The corrected or substitute drawings have been received on \_ are acceptable; not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948). . has (have) been approved by the 10. The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_ examiner; I disapproved by the examiner (see explanation). \_\_, has been \_\_ approved; \_\_ disapproved (see explanation). 11. The proposed drawing correction, filed \_

12. Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has been received not been received \_\_\_\_\_; filed on \_\_

13. Since this application apppears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in

14. Other

Deen filed in parent application, serial no.

accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

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DETAILED ACTION

### **Drawings**

The drawings are objected to by the examiner for improper cross hatching. All the parts shown in section should be cross hatched according to MPEP 608.02, page 600-84. 1.

The drawings are also objected to because those figures showing that which is old are not labeled with a prior art legend. Such a label is required. See, for example, the brief description of figure 1.

Also, the embodiment of the invention claimed is not shown in the drawings and explained in the detailed description of the invention. An illustration and explanation are required. Please note that all of the features of the elected invention should be shown in a single embodiment.

Please note that drawing corrections cannot be postponed until notice of allowance is received, even though submission of formal drawings can be postponed. See MPEP 608.02(v). Corrections in response to this office action are required. No corrections have been received yet.

## Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of 2. which applicant may become aware in the specification.

# Treatment of Claims Based on Prior Art

35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the 3.

er this section made in this Office action:

basis for the reject to a patent unless -atented or described in a printed publication in this or a foreign country or in public use or on ore than one year prior to the date of application for patent in the United States.

> 0-121 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by et al. (US 3389457, hereafter Goldman).

and 117-122 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by atact 32 of Ashby (US 3519890). See also 39-42 which disclose the die.

Claims 113-114 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by the figure and contact 6 of Walraven et al. (US 3188535). See also column 1 line 70, through column 2, line 5.

### Allowable Subject Matter

Claims 115-116 and 123 are objected to as being dependent upon a rejected base claim, but would 7 be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art does not disclose the contacts with the claimed shape and claimed layer structure being formed directly on a semiconductor die.

#### **Related Prior Art**

- The following references are considered pertinent to the present application. 8.
- De Mille et al. and Looney disclose nickel or Kovar wire which is coated with a softer metal.

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-- Urban discloses a free standing contact directly on the die (instead of on the package). But, the

contact does not have the soft precursor with the overcoat. This is true of Moroney as well.

-- Miller discloses copper wire over coated with a hard metal such as nickel (last paragraph of

column 1). Nevertheless, the contact being free standing with a tip pointing away from the die is not

disclosed. And, since this contact is specifically for ultrasonic welding, one of ordinary skill would not

apply this layer structure to a soldered contact.

Column 14, lines 58-62, of Clayton disclose contact formation on bare dies.

Response to Arguments

9. Applicant's arguments have been carefully reviewed, but are moot in view of the new grounds

of rejection.

Closing

10. Any inquiries concerning this communication or earlier communications from the examiner

should be directed to Examiner Kamand Cuneo at (703) 308-1233. Examiner Cuneo's supervisor is

Mr. Jeffrey Gaffin whose telephone number is (703) 308-3301.

K. Cuneo

Patent Examiner, Group 2841

September 27, 2000

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